



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS AND ELECTRIC COMPANY

THE CITY OF RIVERSIDE, CALIFORNIA

THE CITY OF ANAHEIM, CALIFORNIA

DOCKET NO. 50-361

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 44
License No. NPF-10

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the license for San Onofre Nuclear Generating Station, Unit 2 (the facility) filed by the Southern California Edison Company on behalf of itself and San Diego Gas and Electric Company, The City of Riverside and the City of Anaheim, California (licensees) dated February 20, 1985, as supplemented by letters dated July 1, October 10, and October 22, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public;
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

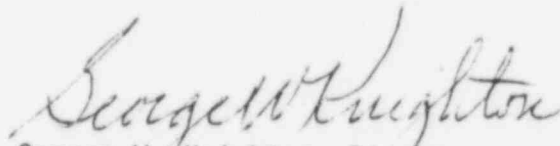
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this amendment and Paragraph 2.C(2) of Facility Operating License No. NPF-10 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 44, are hereby incorporated in the license. SCE shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This amendment is effective immediately and is to be fully implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



George W. Knighton, Director
PWR Project Directorate No. 7
Division of PWR Licensing-B

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 4, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 44

FACILITY OPERATING LICENSE NO. NPF-10

DOCKET NO. 50-361

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contains vertical lines indicating the area of change. Also to be replaced are the following overleaf pages to the amended pages.

<u>Amendment Page</u>	<u>Overleaf Page</u>
3/4 4-31	3/4 4-32
5-9	-
5-10	-
5-11	-

REACTOR COOLANT SYSTEM

PRESSURIZER - HEATUP/COOLDOWN

LIMITING CONDITION FOR OPERATION

3.4.8.2 The pressurizer shall be limited to:

- a. A maximum heatup of 200°F in any one hour period,
- b. A maximum cooldown of 200°F in any one hour period.

APPLICABILITY: At all times.

ACTION:

With the pressurizer temperature limits in excess of any of the above limits, restore the temperature to within the limits within 30 minutes; perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the pressurizer; determine that the pressurizer remains acceptable for continued operation or be in at least HOT STANDBY within the next 6 hours and reduce the pressurizer pressure to less than 500 psig within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.8.2.1 The pressurizer temperatures shall be determined to be within the limits at least once per 30 minutes during system heatup or cooldown.

4.4.8.2.2 The spray water temperature differential shall be determined for use in Table 5.7-1 for each cycle of main spray when less than 4 reactor coolant pumps are operating and for each cycle of auxiliary spray operation.

REACTOR COOLANT SYSTEM

OVERPRESSURE PROTECTION SYSTEMS

RCS TEMPERATURE \leq 235°F

LIMITING CONDITION FOR OPERATION

3.4.8.3.1 At least one of the following overpressure protection systems shall be OPERABLE:

- a. The Shutdown Cooling System Relief Valve (PSV9349) with:
 - 1) A lift setting of 406 ± 10 psig*, and
 - 2) Relief Valve isolation valves 2HV9337, 2HV9339, 2HV9377 and 2HV9378 open, or,
- b. The Reactor Coolant System depressurized with an RCS vent of greater than or equal to 5.6 square inches.

APPLICABILITY: MODE 4 when the temperature of any one RCS cold leg is less than or equal to 235°F; MODE 5; MODE 6 with the reactor vessel head on.

ACTION:

- a. With the SDCS Relief Valve inoperable, reduce T_{avg} to less than 200°F, depressurize and vent the RCS through a greater than or equal to 5.6 square inch vent within the next 8 hours.
- b. With one or both SDCS Relief Valve isolation valves in a single SDCS Relief Valve isolation valve pair (valve pair 2HV9337 and 2HV9339 or valve pair 2HV9377 and 2HV9378) closed, open the closed valve(s) within 7 days or reduce T_{avg} to less than 200°F, depressurize and vent the RCS through a greater than or equal to 5.6 inch vent within the next 8 hours.
- c. In the event either the SDCS Relief Valve or an RCS vent is used to mitigate an RCS pressure transient, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 30 days. The report shall describe the circumstances initiating the transient, the effect of the SDCS Relief Valve or RCS vent on the transient and any corrective action necessary to prevent recurrence.
- d. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

- 4.4.8.3.1.1 The SDCS Relief Valve shall be demonstrated OPERABLE by:
- a. Verifying at least once per 72 hours when the SDCS Relief Valve is being used for overpressure protection that SDCS Relief Valve isolation valves 2HV9337, 2HV9339, 2HV9377 and 2HV9378 are open.

* For valve temperatures less than or equal to 130°F.

TABLE 5.7-1 (Continued)

COMPONENT CYCLIC OR TRANSIENT LIMITS

<u>COMPONENT</u>	<u>CYCLIC OR TRANSIENT LIMIT</u>	<u>DESIGN CYCLE OR TRANSIENT</u>
Reactor Coolant System	2 complete loss of secondary pressure cycles.	Loss of secondary pressure from either steam generator while in MODES 1, 2 or 3.
Pressurizer Spray System	Unlimited number of cycles.	Main spray (4 pumps operating) Main spray (less than 4 pumps operating) with $\Delta T \leq 200^{\circ}\text{F}$. Auxiliary spray with $\Delta T \leq 200^{\circ}\text{F}$. Main spray (less than 4 pumps operating) with $\Delta T > 200^{\circ}\text{F}$ Auxiliary spray with $\Delta T > 200^{\circ}\text{F}$
	Calculate cumulative usage factor.	
		Where: ΔT = Maximum temperature difference between pressurizer and pressurizer spray during the spray cycle.

TABLE 5.7-1 (Continued)

COMPONENT CYCLIC OR TRANSIENT LIMITS

<u>COMPONENT</u>	<u>CYCLIC OR TRANSIENT LIMIT</u>	<u>DESIGN CYCLE OR TRANSIENT</u>
Pressurizer Spray System		

Pressurizer Spray System Usage Factor

<u>ΔT</u>	<u>N_A</u>	<u>N</u>	<u>N/N_A</u>
201 - 250	11,000		
251 - 300	4,000		
301 - 350	2,200		
351 - 400	1,300		
401 - 450	900		
451 - 500	500		
501 - 550	300		
551 - 600	200		

$\Sigma N/N_A =$

where:

ΔT = Maximum temperature difference between pressurizer and pressurizer spray during the spray cycle.

N_A = Allowable number of spray cycles

N = Number of cycles in ΔT range indicated

TABLE 5.7-1 (Continued)

COMPONENT CYCLIC OR TRANSIENT LIMITS

<u>COMPONENT</u>	<u>CYCLIC OR TRANSIENT LIMIT</u>	<u>DESIGN CYCLE OR TRANSIENT</u>
Pressurizer Spray System	<p>Calculational Method:</p> <ol style="list-style-type: none"> 1. The spray cycle is defined as any initiation and termination of main or auxiliary spray flow through the pressurizer spray nozzle. 2. If the maximum temperature difference between the pressurizer and the pressurizer spray during the spray cycle exceeds 200°F, each spray cycle and the corresponding temperature difference is logged. 3. The spray system usage factor is calculated as follows: <ol style="list-style-type: none"> A. Fill in Column "N" above. B. Calculate "N/N_A" (Divide N and N_A). C. Add Column "N/N_A" to find $\Sigma N/N_A$. This total is the cumulative usage factor. 4. <ol style="list-style-type: none"> A. If the cumulative usage factor is equal to or less than 0.65 no further action is required. B. If the cumulative usage factor exceeds 0.65, subsequent pressurizer spray operation shall continue to be monitored and an engineering evaluation of spray system fatigue shall be performed within 90 days. The evaluation shall determine that the spray system remains acceptable for additional service beyond the 90 day period or subsequent spray operation shall be restricted so that the maximum temperature difference between pressurizer and pressurizer spray during the spray cycle shall be limited to less than or equal to 200°F. 	



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SOUTHERN CALIFORNIA EDISON COMPANY

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THE CITY OF RIVERSIDE, CALIFORNIA

THE CITY OF ANAHEIM, CALIFORNIA

DOCKET NO. 50-362

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 33
License No. NPF-15

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the license for San Onofre Nuclear Generating Station, Unit 2 (the facility) filed by the Southern California Edison Company on behalf of itself and San Diego Gas and Electric Company, The City of Riverside and the City of Anaheim, California (licensees) dated February 20, 1985, as supplemented by letters dated July 1, October 10, and October 22, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public;
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

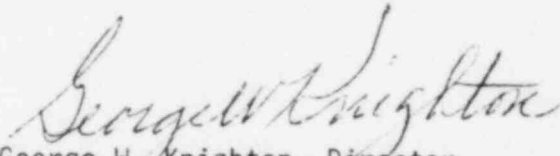
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this amendment and Paragraph 2.C(2) of Facility Operating License No. NPF-15 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 33, are hereby incorporated in the license. SCE shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This amendment is effective immediately and is to be fully implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



George W. Knighton, Director
PWR Project Directorate No. 7
Division of PWR Licensing-B

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 4, 1986

- 3 -

ATTACHMENT TO LICENSE AMENDMENT NO. 33FACILITY OPERATING LICENSE NO. NPF-15DOCKET NO. 50-362

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change. Also to be replaced is the following overleaf page to the amended page.

<u>Amendment Page</u>	<u>Overleaf Page</u>
3/4 4-32	3/4 4-31
5-9	-
5-10	-
5-11	-

FIGURE 3.4-3

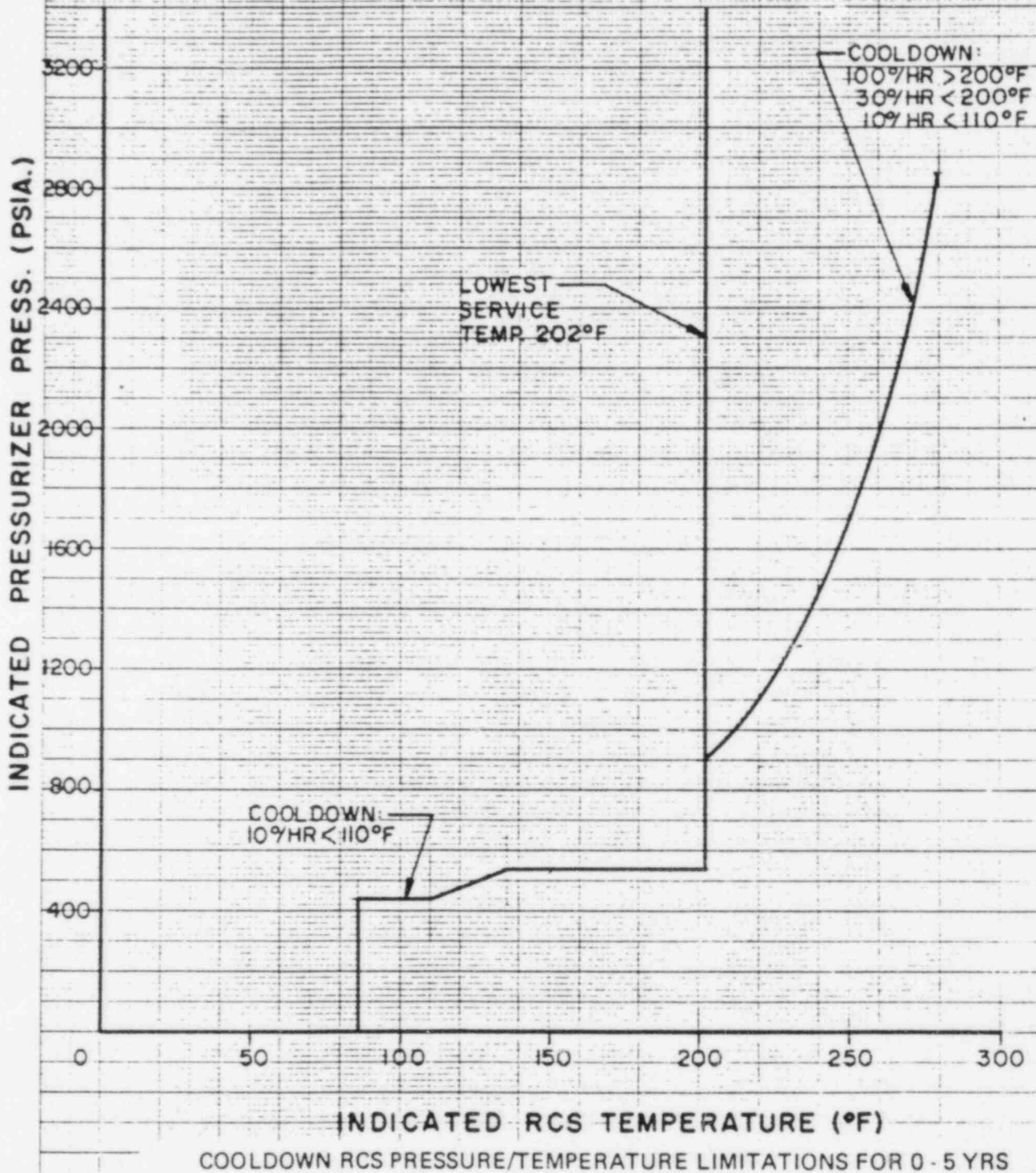


TABLE 5.7-1

COMPONENT CYCLIC OR TRANSIENT LIMITS

<u>COMPONENT</u>	<u>CYCLIC OR TRANSIENT LIMIT</u>	<u>DESIGN CYCLE OR TRANSIENT</u>
Reactor Coolant System	2 complete loss of secondary pressure cycles.	Loss of secondary pressure from either steam generator while in MODES 1, 2 or 3.
Pressurizer Spray System	Unlimited number of cycles.	Main spray (4 pumps operating) Main spray (less than 4 pumps operating) with $\Delta T \leq 200^{\circ}\text{F}$.
	Calculate cumulative usage factor.	Auxiliary spray with $\Delta T \leq 200^{\circ}\text{F}$. Main spray (less than 4 pumps operating) with $\Delta T > 200^{\circ}\text{F}$ Auxiliary spray with $\Delta T > 200^{\circ}\text{F}$
		Where: ΔT = Maximum temperature difference between pressurizer and pressurizer spray during the spray cycle.

TABLE 5.7-1 (Continued)

COMPONENT CYCLIC OR TRANSIENT LIMITS

<u>COMPONENT</u>	<u>CYCLIC OR TRANSIENT LIMIT</u>	<u>DESIGN CYCLE OR TRANSIENT</u>
Pressurizer Spray System		
	<u>Pressurizer Spray System Usage Factor</u>	
<u>ΔT</u>	<u>N_A</u>	<u>N</u>
201 - 250	11,000	
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301 - 350	2,200	
351 - 400	1,300	
401 - 450	900	
451 - 500	500	
501 - 550	300	
551 - 600	200	

$$\Sigma N/N_A = \quad .$$

where:

ΔT = Maximum temperature difference between pressurizer and pressurizer spray during the spray cycle.

NA = Allowable number of spray cycles.

N = Number of cycles in ΔT range indicated.

TABLE 5.7-1 (Continued)

COMPONENT CYCLIC OR TRANSIENT LIMITS

<u>COMPONENT</u>	<u>CYCLIC OR TRANSIENT LIMIT</u>	<u>DESIGN CYCLE OR TRANSIENT</u>
Pressurizer Spray System	<p>Calculational Method:</p> <ol style="list-style-type: none"> 1. The spray cycle is defined as any initiation and termination of main or auxiliary spray flow through the pressurizer spray nozzle. 2. If the maximum temperature difference between the pressurizer and the pressurizer spray during the spray cycle exceeds 200°F, each spray cycle and the corresponding temperature difference is logged. 3. The spray system usage factor is calculated as follows: <ol style="list-style-type: none"> A. Fill in Column "N" above. B. Calculate "N/N_A" (Divide N and N_A). C. Add Column "N/N_A" to find $\Sigma N/N_A$. This total is the cumulative usage factor. 4. <ol style="list-style-type: none"> A. If the cumulative usage factor is equal to or less than 0.65 no further action is required. B. If the cumulative usage factor exceeds 0.65, subsequent pressurizer spray operation shall continue to be monitored and an engineering evaluation of spray system fatigue shall be performed within 90 days. The evaluation shall determine that the spray system remains acceptable for additional service beyond the 90 day period or subsequent spray operation shall be restricted so that the maximum temperature difference between pressurizer and pressurizer spray during the spray cycle shall be limited to less than or equal to 200°F. 	